

**Abstract**

A system for sensing vibration of a machine is provided. A light source directs a beam of light toward a light receiving system adapted to receive at least a portion of the beam of light. A light modulating system modulates the light beam received by the light  
5 receiving system so as to correspond to vibration of the machine. A processing system operatively coupled to the light receiving system processes data received from the light receiving system to facilitate determining vibration of the machine.

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